

December 12, 2007

To: Economic & Technology Advancement Advisory Committee to CARB  
From: Muriel Strand, P.E. (P.O. Box 9, Sacramento CA 95812)  
Re: ETAAC Report Discussion Draft released 11/15/07

In order to achieve needed emissions reductions, I agree with CIEE staff that radical change—more radical than almost anyone is yet talking about—is needed.

I recently happened to read an interesting book called “Taken For a Ride: Detroit’s Big Three and the Politics of Pollution” (2000), by Jack Doyle. From this exhaustive account of the auto industry since WWII, the reader is forced to conclude that the auto industry cares only about profits, and yet has spent \$80 billion between 1980-2000 just on advertising alone (plus even more in lobbying expenses). If their tireless lobbying against pollution reductions and requirements had been directed instead toward engineering innovation and creativity, we would all be driving cars that got at least 100 mpg equivalent with virtually no maintenance. Curiously, during WWII, Detroit was able to meet customer (military) needs with efficacy and good faith. The common factor? Money.

The author described in detail how previous public-private partnerships for radical new vehicle technologies fell afoul of the Big Three’s subtle sabotage, just as I recently heard that the nickel-metal hydride battery technology has been sabotaged by an oil company monopoly. I conclude that successful efforts to develop technology that is appropriate for minimizing climate change are far more likely to be made by small groups of people who are not in it for the money.

I reiterate my previous suggestion that our search for technology that is appropriate must be far more radical than what I have seen so far. Our criteria for efficiency must be far more radical than standard physics concepts of energy efficiency. We must absolutely refocus on our true needs of clean air, clean water, healthy food, and physical warmth as the output of interest in our efficiency concept, and we must absolutely minimize the input of energy and resources necessary to meet these goals. We must discard our attachment to the way we have been doing things, to the trivial trinkets and energy-intensive toys and packaging we buy and throw away, to the jetset vacations. We must be very clear on the difference between our needs and the means we have been using to meet them, means which we can no longer afford.

Take transportation. It’s not about cars, trucks, and rail. It’s not about hydrogen, hybrids, etc. It’s not about mobility. It’s about access to the things we absolutely need. How can we redesign our way of life to allow access to our needs with the absolute minimum energy use?

By encouraging urban farming, bicycles, home cooking, and taxing or outlawing things such as motorized lawnmowers, leafblowers, and electric can-openers. By demolition of most of the asphalt in our suburbs so residents can grow their own food and fiber nearby. By insisting on totally passive solar heating and cooling for every new building, starting now. By planting nut and fruit trees everywhere. By reviving the traditional technologies such as weaving, sewing, and old-fashioned methods of food preservation.

And especially by exploiting the huge and unrealized potential of manually-operated machines. In addition to bicycles, we can design and build human-powered freight and transit vehicles. We can design human-powered alternatives to virtually every device that is now powered by electricity or by petroleum fuels.

But if we use money to entice inventors, we will end up in the same trap Detroit is in. If we use money as the carrot for technological innovation, innovators will design for maximum profit rather than maximum utility or for the maximum amount of needs fulfilled.

In 1950, per capita energy use was at most half what it is now, and no one thought we were uncivilized. If we combined the 1950 lifestyle with the improvements in energy efficiency we have made since then, where would we be relative to the 2050 goal? What are we waiting for? Why can't we have the best of 1950 and 2007?

We can remodel our cities and suburbs into traditional villages surrounded by gardens, farms, and forests, and connected by bicycle paths. Then we will get plenty of healthy food and exercise, so we will feel better and health care costs will plummet. This is not about hardship, hunger, unhappiness, or going back to the caves. It's the cooperative and sensible solution.

And it's the only solution that stands a chance of inspiring China and India to forswear expected increases in their greenhouse gas emissions.